# Fabien Houang

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# **FDUCATION**

## **EPITA**

MSc IN COMPUTER SCIENCE 2015-2019 | Paris, France SCIA - Major in Data Science and Artificial Intelligence

## LINKS

LinkedIn:// houang-fabien
Github:// fabienhouang
Gitlab:// fabien\_houang
Portfolio:// fabienhouang.github.io

# **COURSEWORK**

Unix Tools and Scripting
Data Structures & Algorithms
Functional Programming
Probabilities & Statistics
Big Data & Data Processing
Features Extraction
Convex Optimization
Computer Vision
Machine Learning
Deep Learning Engineering
Cloud Computing

# **SKILLS**

## **PROGRAMMING**

Proficient:

C/C++ • Python • Java • Lance Linux shell • SQL | PostgreSQL Comfortable:

Go • Javascript • Scala • Ruby NoSQL | MongoDB • Rails • Django Familiar:

Caml • Matlab • Lua

#### LIBRARIES & TOOLS

Proficient:

Keras • Numpy • OpenCV Pytorch • Google Colab • VTK OpenMP • Optuna • Neptune Jupyter Notebook • Matplotlib Sacred | Omniboard • GIT GCP • Terraform • Tensorflow Comfortable:

Pandas • Seaborn • Scikit-Learn Familiar:

AWS • Spark • Hadoop

## **LANGUAGES**

English Fluent French Native Chinese(Mandarin) Proficient

## **EXPERIENCE**

#### SFEIR | AGILE DATA ENGINEER

May 2021 - Present | Paris, France

- Worked for their client L'Oreal and collaborated on an agile work environment
- Created data processing pipelines on GCP using Terraform for IaC and Cloud Workflows to orchestrate and automate processing steps
- Stored processed data and created views in **BigQuery** for **Power BI** Dashboards
- Expose data through API implemented with Flask, running on Cloud Run
- Certified Professional Data Engineer on Google Cloud%

#### **SIEMENS HEALTHINEERS** | Research Engineer in Deep Learning

Mar 2019 - Mar 2020 | Princeton, New Jersey, United States Skills: C/C++, Python, PyTorch, Optuna, OpenMP, OpenCV, Sacred | Omniboard, VTK

- Collaborated on **3D** cardiac chambers modelization project using 3D ultrasounds
- Trained Multi-Agent Deep Reinforcement Learning for landmarks detection
- Implemented and trained 3D volumes classification models on unbalanced dataset
- Optimized production code speed and optimized models hyper-parameters
- Achieved **3x faster and 10% more accurate modelization** than the base solution

## III-FINANCEMENTS | FULL STACK DEVELOPER

Sep 2017 - Feb 2018 | Paris, France

- Developed a management web application and statistical analysis dashboards
- Designed Front-end, Back-end, and Database Modeling using Ruby on Rails
- Deployed the application and is currently used by more than 80% of the staffs

## LRDE - EPITA R&D LAB | RESEARCH STUDENT

Jan 2017 - Sep 2017 | Paris, France

- Worked with **G.Tochon** to implement a generic and optimized **Binary Partition**Tree 3. a hierarchical representation for image processing in C++
- Evaluated BPT noise resistance and noise influence on the structure construction

## **ATOS** | Web Application Developer

Jun 2016 - Aug 2016 | Paris, France

- Worked for their client GRDF (Gas Networks of France)
- Created Data Visualization applications for their decision-making department
- Provided documentations on the developed applications and the source code
- Launched developed applications to Production

# **PROJECTS**

## **AUTONOMOUS RACING CAR** | Python, Keras

Apr 2018 - Feb 2019 | Paris, France

- Led a team of 4 students and competed against more than 20 teams nationwide
- Built an autonomous RC car connected to a Raspberry Pi 3 with camera module
- Collected, processed and simulated data for Deep Learning training
- Designed, trained time and memory efficient models to run on embedded system

# AWARDS & CERTIFICATION

2021	July 21st	Google Cloud Certified Professional Data Engineer%
2018	1 <sup>st</sup> /10	DIY Robocars France, Fall Race (Self-Driving Car)

2018 3<sup>rd</sup>/20 IronCar France, Summer Race (Self-Driving Car)